

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

This listing of claims will replace all prior versions and listings of claims in this application:

b.) Listing of Claims

1. (Currently amended) A network comprising:

a plurality of network nodes;

a plurality of routing devices to route network traffics between selected ones of said network nodes;

a plurality of sensors, either integrally disposed in a subset of said routing devices or externally disposed and coupled to the subset of routing devices, to monitor and report on network traffic routed through the subset of routing devices in different network domains; and

a plurality of director devices corresponding to the network domains to facilitate receipt of information on network traffic from the sensors ~~a director coupled to said sensors to receive network traffic information from said sensors~~ for said subset of routing devices, and to determine in response whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of said network nodes, based at least in part on some of said network traffic information received from said sensors.

2. (Original) The network of claim 1, wherein the sensors are equipped to periodically gather data denoting at least amount of network traffic routed through said subset of routing devices, said data including destinations of said network traffic.

3. (Currently amended) The network of claim 1, wherein the sensors are equipped to periodically report to said director devices data denoting at least amount of network traffic routed through said subset of routing devices, said data including destinations of said network traffic.

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

4. (Original) The network of claim 1, wherein the sensors are equipped to facilitate application of desired moderation on network traffic through selected ones of said subset of routing devices.
5. (Currently amended) The network of claim 1, wherein the director ~~is~~ devices are further employed to determine in response moderating actions to be taken, including where the moderating actions are to be taken, if the director devices determine ~~determines~~ that moderating actions are to be taken to moderate the amount of network traffic.
6. (Currently amended) The network of claim 1, wherein the director ~~is~~ devices are further employed to determine in response whether moderating actions are to be relaxed for the at least one of the network nodes, based at least in part on some of said network traffic reports received from said sensors.
7. (Currently amended) The network of claim 6, wherein the director ~~is~~ devices are further employed to determine in response moderation relaxation actions to be taken, including where the moderation relaxation actions are to be taken, if the director ~~determines~~ devices determine that moderation relaxation actions are to be taken to relax moderation on the amount of network traffic.
8. (Currently amended) The network of claim 1, wherein the director ~~is~~ devices are further employed to determine in response whether filtering actions are to be taken for the at least one of the network nodes, based at least in part on some of said network traffic reports received from said sensors.
9. (Currently amended) The network of claim 8, wherein the director ~~is~~ devices are further employed to determine in response where the filtering actions are to be taken, if the director ~~determines~~ devices determine that filtering actions are to be taken to filter out network traffic.

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

10. (Original) The network of claim 8, wherein the sensors are equipped to facilitate application of desired filtering on network traffic through selected ones of said subset of routing devices.

11. (cancelled)

12. (Currently amended) A method comprising:

routing network traffic to and from a plurality of network nodes of a network;
monitoring and reporting on a portion of said network traffic routed through a plurality of routing devices distributively disposed in the network using a plurality of director devices corresponding to different network domains to facilitate receipt of information on network traffic from sensors; and
determining whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of said network nodes, based at least in part on some of said network traffic reports received for said routing devices from said sensors.

13. (Original) The method of claim 12, wherein said monitoring comprises periodically gathering data denoting network traffic routed through said routing devices, said data including destinations of said portion of network traffic.

14. (Original) The method of claim 12, wherein said reporting comprises periodically reporting on data denoting said portion of network traffic routed through said routing devices, said data including destinations of said portion of network traffic.

15. (Original) The method of claim 12, wherein said method further comprises facilitating application of desired moderation on network traffic passing through selecting ones of said routing devices.

16. (Original) The method of claim 12, wherein said method further comprises determining moderating actions to be taken, including where the moderating actions are

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

to be taken, if it is determined that moderating actions are to be taken to moderate the amount of network traffic destined for a network node.

17. (Currently amended) The method of claim 12, wherein the method further comprises determining in response whether moderating actions are to be relaxed for the at least one of the network nodes, based at least in part on some of said network traffic reports received from said sensors in the different network domains.

18. (Original) The method of claim 17, wherein the method further comprises determining in response moderation relaxation actions to be taken, including where the moderation relaxation actions are to be taken, if it is determined that moderation relaxation actions are to be taken to relax moderation on the amount of network traffic destined for a network node.

19. (Original) The method of claim 12, wherein the method further comprises determining in response whether filtering actions are to be taken for the at least one of the network nodes, based at least in part on some of said network traffic reports received from said sensors.

20. (Original) The method of claim 19, wherein the method further comprises determining in response where the filtering actions are to be taken, if it is determined that filtering actions are to be taken to filter out network traffic destined for a network node.

21. (Original) The method of claim 19, wherein the method further comprises facilitating application of desired filtering on network traffic through selected ones of said subset of routing devices.

22. (Original) The method of claim 12, wherein said sensing is performed using a collection of hierarchically organized devices.

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003ust

23. (Currently amended) The method of claim 12, wherein said determining is performed using the director devices, which are a collection of hierarchically organized devices.

24. (Currently amended) An apparatus comprising:

(a) a storage medium having stored therein a plurality of programming instructions designed to implement (a.1) a requestor to request a routing device of a network for data denoting network traffic routed through ~~said routing~~ said routing device, and to request alteration of routing operations of said routing device to moderate an amount of network traffic going through said routing device, (a.2) a reporter to report said data denoting network traffic routed through ~~said routing~~ said routing device, and (a.3) a regulator to control submission of said network traffic moderation routing operation alteration requests to ~~said routing~~ said routing device, responsive to moderation instructions provided; and

(b) a processor coupled the storage medium to execute the programming instructions; and

a communication interface for coupling to at least one of a plurality of hierarchically organized director devices that are coupled to each other to facilitate data collection, analysis and traffic regulation.

25. (Currently amended) The apparatus of claim 24, wherein the ~~apparatus further comprises a communication interface coupled to the processor, to couple~~ couple the apparatus to said routing device ~~and to facilitate submission of said network traffic moderation routing operation alteration requests to~~ said routing said routing device.

26. (Currently amended) The apparatus of claim 24, wherein the ~~apparatus further comprises a communication interface coupled to the processor, to couple said apparatus to a director that determines~~ director devices determine whether ~~moderate~~ moderation actions are to be taken to moderate an amount of network traffic, based on said data reported, to facilitate reporting of said data to said director devices.

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

27. (Cancelled)

28. (Currently amended) The apparatus of ~~claim 24~~ claim 24, wherein the requestor is further used to request alteration of routing operations of said routing device to ~~relax~~ moderate an amount of network traffic going through said routing device.

29. (Currently amended) The apparatus of ~~claim 24~~ claim 24, wherein the requestor is further used to request filtering operations of said routing device to filter out network traffic going through said routing device.

30. (Currently amended) A networking apparatus comprising:

a first functional unit to route network traffic;

a second functional unit coupled to the first functional unit to gather data denoting network traffic routed through ~~routing~~ a routing device, and to apply moderating actions to said first functional unit to moderate network traffic going through said networking apparatus;

a third functional unit coupled to the second functional unit to report said data;
~~and~~

a fourth functional unit coupled to the second functional unit to control application of said moderating actions to said first functional unit to effectuate a desired moderation of network traffic going through said networking apparatus, responsive to moderation instructions provided; and

a plurality of hierarchically organized director devices that are coupled to each other to facilitate data collection, analysis and traffic regulation, and issue the moderation instructions, being coupled to the third functional unit and the fourth function unit.

31. (Currently amended) The networking apparatus of claim 30, wherein the networking apparatus further comprises a communication interface coupled to the fourth functional unit, to couple said networking apparatus to a said director devices that ~~determines~~

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

determine whether moderate actions are to be taken to moderate an amount of network traffic, based on said data reported, to facilitate reporting of said gathered data to said director.

32. (Original) The networking apparatus of claim 30, wherein the second functional unit is further used to relax moderating actions applied to the first functional unit to relax moderating an amount of network traffic going through said routing device.

33. (Currently amended) The networking apparatus of ~~claim 30~~ claim 30, wherein the second functional unit is further used to cause the first functional unit to filter out network traffic going through said networking apparatus.

34. (Currently amended) An apparatus comprising:

(a) a storage medium having stored therein a plurality of programming instructions designed to implement a director devices in different network domains to receive reporting of data denoting network traffic routed through a plurality of routing devices of a network, and to determine in response whether moderating actions are to be taken to moderate an amount of network traffic destined for at least one of a plurality of network nodes of said network, based at least in part on some of said reported data; and

(b) a processor coupled the storage medium to execute the programming instructions.

35. (Currently amended) The apparatus of ~~claim 34~~ claim 34, wherein said programming instructions are designed to determine whether a moderation threshold has been reached for a network node, based at least in part on some of said reported data.

36. (Currently amended) The apparatus of ~~claim 35~~ claim 35, wherein said programming instructions are further designed to determine moderating actions to be taken, including where the moderating actions are to be taken, if it is determined that moderating actions are to be taken to moderate an amount of network traffic.

Application No.: 09/631,898
Amendment dated: April 26, 2005
Reply to Office Action of January 25, 2005
Attorney Docket No.: 0016.0003us1

37. (Original) The apparatus of claim 34, wherein the apparatus further comprises a communication interface coupled to the processor, to couple the apparatus to a plurality of sensors to receive said data reporting.

38. (Currently amended) The apparatus of ~~claim 34~~ claim 34, wherein the director further determines whether moderating actions being applied are to be relaxed, based at least in part on some of said reported data.

39. (Original) The apparatus of claim 34, wherein the director further determines whether filtering actions are to be taken to filter out network traffic, based at least in part on some of said reported data.